4.16 SOCIOECONOMICS

This section presents information on existing social and economic conditions in the proposed Project area, including Ventura County, the City of Oxnard, and the City of Santa Clarita (in Los Angeles County). During the public scoping and comment periods for the October 2004 Draft Environmental Impact Report/Environmental Impact Statement (EIS/EIR) and the March 2006 Revised Draft EIR, participants requested information regarding commercial fishing, public services (including emergency response capabilities), the effects of the project on housing and tourism, the effects of an LNG carrier security zone on commercial fishing catch in the Tanner Banks, the job market, access to businesses in construction areas, property values, insurance rates, costs of emergency response to an accident, and the overall local economy.

Based on a comment received from the Ventura County Resource Management Agency, the document entitled Monitoring and Mitigating Socioeconomic Impacts of Offshore Related Oil and Gas Development: 1985-1995, A Case Study (Santa Barbara County Association of Governments 2000) was also reviewed for applicability to the proposed Project. This document concerns a number of offshore projects that were constructed in the 1980s and 1990s. A similar analysis would not be applicable to the proposed Project because onshore construction employment for the proposed Project is limited to 200 to 240 people, and, as discussed within this section, they could be absorbed within the regional economy, should they chose to live nearby, without requiring new construction. Ventura County may consider this document in its review of any permit conditions associated with the proposed Project.

The Ventura County Resource Management Agency also recommended the document entitled Mitigation Program for Ventura County, Ventura County OCS/Tidelands Socioeconomic Monitoring and Mitigation Program (Ventura County 1989). This document also recommends a different method for evaluating and presenting socioeconomic impacts. While the recommendation from Ventura County is acknowledged, this document approaches the issues in a manner that is specific to this particular type of Project.

According to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), economic or social effects are to be considered when there is a linkage to a physical effect.[1,2]

[1] The Council on Environmental Quality's NEPA Regulations require Federal agencies to "identify environmental effects and values in adequate detail" (40 Code of Federal Regulations [CFR] § 1501.2) in their analyses and define the term "effects" to include social and economic effects, among others (40 CFR § 1508.8). The NEPA regulations define the human environment as the natural and physical environment and the relationship of people with that environment.

[2] Section 15131(a) of the State CEQA Guidelines states that "Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate

Under NEPA, analysis should be restricted to those social or economic factors that are interrelated to the natural or physical environment and may be affected by the range of alternatives considered. In addition, § 15131 of the State CEQA Guidelines states that "economic or social information may be presented in an EIR in whatever form the agency desires." This section is written in accordance with both NEPA and the CEQA requirements and guidance.

This section discusses the Project's potential impacts on social and economic factors, and, where potentially significant impacts are identified, specifies mitigation measures to reduce those impacts below their significance criteria. This section also evaluates socioeconomic effects of Project alternatives. Impacts on local businesses are discussed in Section 4.13, "Land Use," and Section 4.17, "Transportation."

This section does not discuss international economic implications, natural gas pricing, or supply chain issues related to the Project since the related physical changes that would produce environmental impacts are highly speculative and infinite variations could occur, which would render any characterization of linkage similarly speculative. However, Chapter 1, "Introduction," Chapter 2, "Description of the Proposed Action," and Chapter 3, "Alternatives" provide discussion related to the proposed Project's purpose, need, and objectives, supply features, and the State's natural gas requirements as determined by the California Energy Commission.

The Project includes offshore components—a floating, storage, and regasification unit (FSRU) moored approximately 12.01 nautical miles (NM) (13.83 miles or 22.25 kilometers [km]) from shore, offshore pipelines, a shore crossing where the pipeline would be installed in a boring under Ormond Beach, and two onshore pipelines. The 14.7-mile (23.7 km) Center Road Pipeline is in Oxnard and unincorporated areas of Ventura County and the 7.7-mile (12.4 km) Line 225 Loop Pipeline is in Santa Clarita, Los Angeles County. The onshore pipelines and related facilities would be constructed, owned, and operated by the Southern California Gas Company (SoCalGas), a natural gas utility regulated by the California Public Utilities Commission. The Project components and location are described in detail in Chapter 2, "Project Description."

4.16.1 Environmental Setting

4.16.1.1 Offshore

The social and economic settings in the Project area are discussed in detail in Section 4.16.1.2 below. A study of socioeconomic impacts of offshore development in the area indicated that workers often use hotels and campgrounds as viable alternatives to permanent housing (MMS 2001). Such accommodations are discussed in Section 4.16.1.2.

economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes."

Offshore Projected Workforce

The floating storage and regasification unit (FSRU) would be towed from its fabrication point to the mooring location and anchored. Personnel associated with this work during an approximately 20-day period would be limited. The FSRU would have an operations crew of about 30 persons that would be rotated every seven days and transferred to and from the FSRU by a supply vessel from Port Hueneme.

Construction of the offshore pipelines would require up to 200 non-local personnel for an approximately 35-day period. Project personnel working on the offshore pipelines would be housed on the pipelaying barge during construction activities. The associated shore crossings would require 15 specialized craftsmen to complete horizontal directional boring (HDB) operations during an approximately 108-day period.

No additional permanent workers would be required for pipeline maintenance. Non-local construction personnel and their families are expected to disperse following completion of construction activities.

Commercial Fishing

The main ports for commercial vessels in the central coast are Port Hueneme, Santa Barbara Harbor, Oxnard (Channel Islands Harbor), and Ventura Harbor. Thirty-five commercial fishing vessels operate out of Santa Barbara. About 60 to 65 commercial fishing vessels operate out of Ventura, and there are 80 resident commercial vessels at the Channel Islands Marina (NRC 2003). Table 4.16-1 shows the typical number of commercial fishing vessels in each port. Table 4.16-2 presents characteristics of the fishing fleet in the Project area, such as the type and size of vessels, areas fished, and the number of vessel days and the time of year vessels when are typically active.

As indicated in Table 4.16-2, some commercial fishing equipment can harm subsea pipelines, and vice versa. The Joint Oil/Fisheries Committee of South/Central California was established in 1983 in response to calls by both industries for improved communication, and to address several at-sea space-use conflicts which had intensified over the previous decades (JOFLO 1996). Issues and programs include:

- Improving industry communications;
- Seismic survey notification procedures;
- Vessel traffic/right-of-way;
- Compensation/mitigation of impacts; and
- Potential resource damage issues.

Table 4.16-1 Commercial Fishing Fleets in Area Ports

Type of Vessel	Ports		
	Santa Barbara	Channel Islands Marina	Ventura Harbor
Shrimp/sea urchin/sea cucumber trawlers or dive boats	29	40	Approximately 20
Swordfish harpoon/tuna longline vessels	--	4	3 - 4
Lobster/crab boats	--	12	10 - 15
Squid purse seine vessels	--	20	10 - 12
Squid light boats	--	--	5 - 7
Hook and line rock cod or sablefish boats	--	7	6 - 8
Gillnetters	6	5	--

Source: NRC 2003.

Note: Data not included for Port Hueneme.

Table 4.16-2 Commercial Fishing Location and Timing

Type of Vessel; Size in Feet (Meters)	Primary Fishing Location	Number of Fishing Vessels in Vicinity per Year	Number of Vessel Days; Timing
Groundfish trawlers 66 - 82 (20 - 25)	Depths of less than 200 m	5	112 - 983 days; year-round, with 65 percent of the effort occurring November through February. From June through March, vessels can approach within 1 NM of shore for California halibut.
Bottom longline vessels (sablefish) 16 - 23 (5 - 7)	Depths from 180 to 650 m on gravel or harder bottom	5	25 - 378 days (236 average)
Set gillnetters 23 - 49 (7 - 15)	Flat sand or mud nearshore, just outside the 3 NM restriction area	5 - 15	114 - 985 (368 average); year-round, with most effort February through August for the prime halibut season.
Lobster Trap 26 - 52 (8 - 16)	Depths less than 365 m	5 - 10	112 - 182 (156 average)
Shrimp Trap 30 - 66 (9 - 20)	Depths less than 365 m over a variety of bottom types	8 - 10	318 - 400

Source: NRC 2003.

The 1996 report on the Committee also describes the formation and functions of the Joint Oil/Fisheries Liaison Office (JOFLO). It is funded by the California Coastal Operator's Group, an oil industry organization comprised of many companies having interests in oil and gas operations off the Central California coast. JOFLO:

- Acts as a clearinghouse for information, including gathering information about fisheries in the Santa Barbara Channel and Santa Maria basin;
- Provides facilitation of inter-industry communication and proper filing of claims;
- Is intended to reduce conflicts between geophysical surveys and fishing operations; and
- Identifies the procedures and responsibilities to be used during three phases (identification, mitigation, and implementation), providing guidelines for fishermen's claims for lost or damaged gear in the vessel traffic corridors.

Dispute resolution and problem solving processes used by the Joint Committee include four basic principles:

- Neutral roles – the Marine Advisor, Liaison Officer, and Mediator serve as neutral parties to interface with participants in the Joint Committee process;
- Representation of Stakeholder Interests – selected representatives must be active agents, committed to the goals of the programs of the Joint Committee;
- Importance of Process Ground Rules and Written Agreements – provide a structure than can guide the talks; and
- Involvement of Stakeholder groups – stakeholder groups are invited to sit in on Joint Committee sessions when broader interests are being discussed.

The resolution of a claim generally proceeds as follows:

- The responsible party will verify the amount of gear lost/damaged, the replacement/repair cost, and if appropriate, lost catch;
- A good faith effort will be made by responsible part top resolve the claim within 15 days of receipt of the information supporting the claim; and
- If a claim has not reached conceptual agreement within 15 days, either party may submit the matter to arbitration. Arbitration is governed by Title 9 of the California Code of Civil Procedure.

The Joint Oil/Fisheries Committee has not historically authorized the Liaison Office to release confidential economic detail of claims; Specific information about individual or collective claims is held confidential by JOFLO pursuant to a confidentiality agreement signed by JOFLO and the Committee. However, JOFLO has generally indicated that individual claims can range from a few hundred dollars for entangled crab or lobster gear to tens of thousands of dollars for lost trawl net, doors, bridles, or loss of production (JOFLO 2004).

Commercial fishing contributes to the economic setting of the Project area. The value of fish landings in the Ventura area in 2001 was $17,600,165 (see Table 4.16-3). Figure 4.16-1 identifies the CDFG fishing catch blocks in the vicinity of the proposed Project. Among local landing sites, Port Hueneme has the largest commercial fish landings in the Ventura area, as shown in Table 4.16-3, in terms of both total pounds caught and dollar value. Table 4.16-4 shows landings and earnings in the Ventura area from 1991 to 2001.

Table 4.16-3 Commercial Fish Landings by Port (Ventura Area) and Top Commercial Value of Fish Landings by Species – 2001

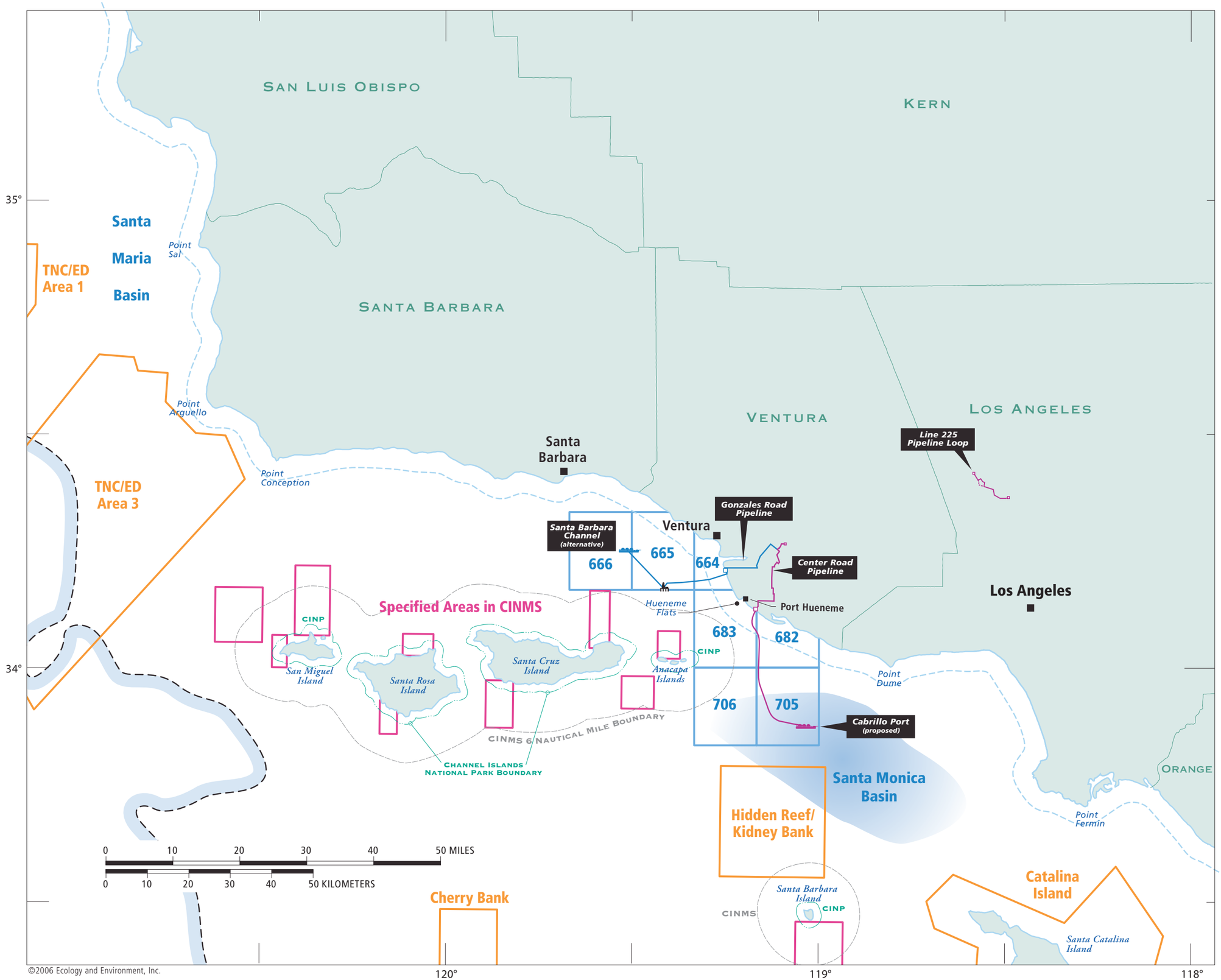
Port	Pounds (Kilograms)	Value	Species	Pounds (Kilograms)	Value
Port Hueneme	85,937,126 (38,981,080)	$6,001,545	Urchin, red	1,328,357 (602,543)	$1,236,037
Santa Barbara Harbor	5,261,519 (2,386,625)	$5,361,649	Squid, market	68,557,108 (31,097,504)	$5,183.702
Oxnard (Channel Islands Harbor)	2,393,637 (1,085,754)	$3,162,555	Urchin, red	2,176,421 (987,225)	$1,967,700
Ventura Harbor	16,362,140 (7,421,867)	$3,072,468	Squid, market	15,517,676 (7,038,818)	$1,280,022
All Other Ports	2,119 (961)	$1,948	Urchin, red	863 (391)	$863
Total	**109,956,541 (49,876,287)**	**$17,600,165**			

Source: CDFG 2002.

Table 4.16-4 Annual Port Hueneme-Oxnard-Ventura Fish Landings

Year	Millions of Pounds/kg	Millions of Dollars	Year	Millions of Pounds/kg	Millions of Dollars
2001	104.8/47.5	12.6	1990	39.4/17.9	12.5
2000	162.2/73.6	20.2	1989	65.3/29.6	12.0
1999	155.9/70.7	32.3	1988	55.0/24.9	10.0
1998	16.2/7.3	8.0	1987	42.3/19.2	8.1
1997	111.9/50.8	21.7	1986	31.0/14.1	5.8
1996	138.9/63.0	34.8	1985	19.9/9.0	5.4
1995	116.8/53.0	26.8	1984	9.4/4.3	3.2
1994	68.3/31.0	26.7	1983	22.7/10.3	3.7
1993	39.9/18.1	10.3	1982	36.4/16.5	3.8
1992	18.7/8.5	10.7	1981	48.0/21.8	4.6
1991	50.2/22.8	14.0			

Source: National Marine Fisheries Service 2003.



References:

1) (Map) *California Cowcod Conservation Areas*, California Dept. of Fish & Game, February 2004
2) (Shaded Relief Map) *State of California*, 1:1,000,000, U.S. Gelogical Survey, 1971
3) *Preferred Alternative Groundfish Essential Fish Habitat, Final Environmental Impact Statement,* PFMC, June 15, 2005

LEGEND:

- Approx. location of 3-nautical mile line *(California jurisdictional waters)*
- Approx. 700-fathom line
- 705 — CDF&G Catch block

Bottom trawl prohibited zones:

- Within EEZ west of the 700-fathom line
- Closed to bottom trawl gear
- Closed to all fishing gear

* per Pacific Fishery Management Council

CABRILLO PORT LNG DEEPWATER PORT

Figure 4.16-1

California Department of Fish and Game Catch Blocks in the Project Area

Commercial fishing along the California coast involves the use of several gear types that target a wide variety of fish and invertebrates species. The most common gear types include trawls, trolling, longlines, and gill nets (FMA 2005). Trawlers in central and southern California drag a trawl net behind a boat at slow speeds in either mid-water (without contacting the bottom) or along the bottom. In the Santa Monica Basin (and over most of the study region), trawlers fish at water depths up to 2,400 feet (732 meters [m]) in areas with soft bottom and low-relief (less than 3.3 feet [1 m] tall) hard bottom, where gear can effectively catch target species (JOFLO Committee 1986b). Areas with high relief (greater than 3.3 feet [1 m] tall) are generally not fished by trawlers due to the potential for gear loss.

Pelagic (open sea) fisheries include those that use gill nets, long lines, purse seines, lampara nets, and other methods. Gear, such as longlines and set gill nets, contact the ocean floor.

Recreational Fishing

Sport fishers off California operate from both charter boats and privately owned craft. Vessels out of the Santa Barbara, Ventura, the Channel Islands Marina, and Port Hueneme are directed at flat sand bottom in less than 328 feet (100 m) of water along the coast. These vessels may anchor or drift along the beach. Anchoring typically occurs in depths of less than 98.4 feet (30 m) (NRC 2003).

4.16.1.2 Onshore

Population

Total population and population density for Ventura and Los Angeles Counties and the communities in the Project area are presented in Table 4.16-5.

Table 4.16-5 Population and Population Density in the Vicinity of the Proposed Project

	Actual Population (Estimated)			Projected Population		Population Density per Square Mile
Place	**1/1/1990**	**4/1/2000**	**1/1/2005**	**2010**	**2020**	**2000**
California	29,558,000	33,873,086	36,810,358	39,246,767	43,851,741	217.2
Ventura County	666,800	753,197	804,524	860,664	924,410	408.2
Camarillo	52,100	57,084	62,739	n/a	n/a	3,015.3
Oxnard	140,400	170,358	188,849	n/a	n/a	6,981.9
Port Hueneme	20,250	21,845	22,445	n/a	n/a	n/a
LA County	8,832,500	9,519,330	10,226,506	10,461,007	10,885,092	2,344.2
Santa Clarita	110,800	151,131	167,956	n/a	n/a	2,733.4

Sources: California Department of Finance 2004; U.S. Census Bureau 2000.

Ventura County and the City of Oxnard grew steadily between 1990 and 2000 and are expected to experience further increases through 2010 (see Table 4.16-5). Population and housing estimates for Ventura County for 2005 are presented in Table 4.16-6.

Table 4.16-6 Population and Housing Estimates for Ventura County

		Housing Units					
		Single		Multiple			
County/City	Population	Detached	Attached	2 To 4 Units	5+ Units	Mobile Homes	Occupied
Ventura County	267,363	172,281	27,667	16,682	38,433	12,300	258,441
Camarillo	23,617	14,127	4,493	884	3,055	1,058	23,071
Oxnard	49,382	28,001	4,576	4,427	9,432	2,946	47,644
Port Hueneme	8,037	2,420	2,204	1,201	2,171	41	7,401
San Buenaventura	41,143	23,110	3,428	4,212	7,770	2,623	39,821

Source: California Department of Finance 2005.

Onshore Projected Workforce

Construction of the onshore pipelines would require approximately nine months to be completed. A construction workforce of approximately 200 to 240 workers (100 to 120 workers per pipeline) would be employed on the Project during the peak construction period. The Applicant anticipates as a worst case that about 15 percent of these workers would be local residents, who would not relocate during pipeline construction. The remaining 85 percent would be non-local workers who would relocate to the Project area and would be housed at various available accommodations (see Table 14.16-6). Non-local workers may also bring family members at an estimated rate of 0.8 family members per worker. Total migration into the area would, therefore, be up to about 368 persons for the construction period.

No additional permanent workers would be required for pipeline maintenance. Non-local construction personnel and their families are expected to disperse following completion of construction activities.

Housing

Temporary housing is available in the Project vicinity, primarily as rental units, hotel/motel rooms, and tent camping sites. Vacancy rates in the Project area shown in Table 4.16-7 are an indication of available rental units, measured as a percentage of total accommodations. Camarillo has the lowest vacancy rate at 2.3 percent while Port Hueneme has the highest rate at 7.9 percent.

Table 4.16-7 Vacancy Rates in the Vicinity of the Proposed Project

Location	Ventura County	City of Oxnard, Ventura County	City of Port Hueneme, Ventura County	City of Camarillo	Los Angeles County	City of Santa Clarita, Los Angeles County	State of California
Vacancy Rate (percent)	3.3	3.5	7.9	2.3	4.2	3.2	5.9

Source: California Department of Finance 2006.

Non-local pipeline construction workers typically reside at recreational vehicles (RV) and tent camping parks during construction. Table 4.16-8 lists temporary accommodations in the Project vicinity that would be available to non-local Project personnel.

Table 4.16-8 Temporary Accommodations in the Vicinity of the Proposed Project

City/County	Hotel/ Motel No. of Rooms	Tent	RV Campsites	Total Units
Ventura/Ventura	1,302	0	383[a]	1,685
Oxnard/Ventura	925	0	476[a]	1,401
Port Hueneme/Ventura	209	0	0	209
Camarillo/Ventura	675	-	-	675
Carpinteria/Santa Barbara	219	-	70[a]	289
Fillmore/Ventura	49	-	-	49
Ojai/Ventura	334	-	43[a]	377
Santa Barbara/Santa Barbara	3,220	-	819[a]	4,039
Santa Clarita Valley	620	253	398	1271
Thousand Oaks/Ventura	455	-	-	455

Source: AAA 2002.

Note:

[a]Includes both tent and RV sites.

Considering Ventura County parks alone, there are 558 tent and RV sites (see Table 4.16-9 for number and location of campsites in Ventura County).

Table 4.16-9 Ventura County Parks Department – Tent and RV Campgrounds

Site	Tent Camping Sites (without electric hookups)	RV Sites (with electric hookups)
Camp Comfort	24	16
Dennison (primitive)	40	0
Faria Beach	42	15
Foster (two campgrounds)	46	0
Hobson Beach	31	10
Kenny Grove	18	42
Oak Park	8	42

Table 4.16-9 Ventura County Parks Department – Tent and RV Campgrounds

Site	Tent Camping Sites (without electric hookups)	RV Sites (with electric hookups)
Rincon Parkway	0	127
Steckel Park	26	71
TOTAL	**235**	**323**

Source: BHPB 2005.

Property Values and Insurance

The presence of an offshore facility 12.01 NM (13.83 miles or 22.25 km) from the coast would be an indistinguishable element on the horizon (see Section 4.4, "Aesthetics") and would not be expected to impact onshore property values. Property owners would not be required to disclose the presence of the FSRU offshore as part of a real estate transaction.

In real estate transactions, utility rights-of-way and easements are described and disclosed in a title report to the purchasing parties. The presence and/or proximity of a natural gas pipeline may affect a person's decision to buy a property; however, determining how an easement would affect a property's value is a matter of extensive appraisal analysis on a case-by-case basis and is more appropriately considered during the negotiations associated with an easement acquisition or a condemnation proceeding. Physical and location factors that are taken into account by property buyers differ considerably, and the effects of those factors are not possible to assess in this document.

Property taxes are based on the value of the real property, whether land, improved property or an easement. As such, a pipeline easement on a property may affect the value of a property and therefore may also affect taxes. There is no indication that home insurance rates would be affected (see Section 4.2.5, "Financial Responsibilities in the Event of an Accident").

As part of the public process, the Ventura County Coastal Association of Realtors submitted a statement clarifying that they did not have a position for or against the proposed Project, but noted that "there is no factual evidence, positive or negative, indicating an impact on property values" from the proposed installation of onshore high pressure natural gas pipelines (USDOT 2004).

Local Economy and Labor Force

The highest employment in Ventura County and the Cities of Oxnard and Santa Clarita generally occurs in the manufacturing, retail, professional, and educational sectors and in health and social services. Naval Base Ventura County (NBVC) is the largest employer, with 14,547; St. John's Regional Medical Center is the second largest employer, with 1,994 employees; and the City of Oxnard is the third largest employer, with 1,424 (EDCO 2005). In addition, in the City of Oxnard, 10 percent of employment is in the agricultural sector, compared with 4.1 percent in Ventura County and 0.4

percent in Santa Clarita. Employment in the construction sector is about 6.3 percent of total employment in Ventura County and 6.1 percent in Santa Clarita. Table 4.16-10 presents the average annual salaries in Ventura County by selected economic sectors in 2002.

Table 4.16-10 Ventura County Average Annual Salaries, 1st Quarter 2002

Sector	Average Annual Salary
Agriculture	$ 18,534
Mining	$ 57,539
Utilities	$ 51,765
Construction	$ 36,100
Non-durables Manufacturing	$ 84,344
Durables Manufacturing	$ 47,769
Wholesale Trade	$ 58,174
Retail Trade	$ 20,571
Transportation and Warehousing	$ 35,897
Communications	$ 71,415
Financing and Insurance	$ 59,647
Real Estate	$ 40,652
Services	$ 32,522
Public Administration	$ 54,069
Private Sector	$ 37,334

Source: Ventura County Workforce Investment Board 2003.

Agricultural businesses in Oxnard include Seminis, Inc. (greenhouse growers with 200 employees); Boskovich Farms (with 1,000 employees); and Mandalay Berry Farms, J.M. Smucker, OJ Farms, and Deardoff Jackson (each with between 250 and 300 employees) (EDCO 2005).

The Six Flags Magic Mountain amusement park in Valencia is the largest employer in Santa Clarita Valley, with 4,500 employees (Santa Clarita Office of Economic Development 2003).

Tables 4.16-11 and 4.16-12 present employment by sector in Ventura and Los Angeles Counties.

Tourism

Tourism in Ventura County provides 19,100 jobs and $360 million in wages, $19.6 million in local tax revenues, and $56.9 million in state tax revenue. Ventura County's domestic visitor volume (both business and leisure) totaled 3.6 million person trips in 2001, compared to the California total domestic visitor volume of 307.7 million person trips (California Division of Tourism 2003).

Table 4.16-11 Ventura County Employment, 2003

Sector	Number of Workers
Agriculture, forestry, fishing and hunting, and mining	16,378
Construction	19,016
Manufacturing	42,899
Wholesale trade	11,700
Retail trade	39,189
Transportation and warehousing, and utilities	11,084
Information	11,271
Finance, insurance, real estate, and rental and leasing	31,719
Professional, scientific, management, administrative, and waste management services	43,243
Educational, health, and social services	62,994
Arts, entertainment, recreation, accommodation, and food services	20,466
Other services (except public administration)	23,019
Public administration	21,892

Source: U.S. Census Bureau 2003.

Table 4.16-12 Los Angeles County Employment, 2003

Sector	Number of Workers
Agriculture, forestry, fishing and hunting, and mining	18,629
Construction	244,965
Manufacturing	586,074
Wholesale trade	188,204
Retail trade	444,703
Transportation and warehousing, and utilities	208,941
Information	201,375
Finance, insurance, real estate, and rental and leasing	321,464
Professional, scientific, management, administrative, and waste management services	522,187
Educational, health, and social services	801,754
Arts, entertainment, recreation, accommodation, and food services	362,097
Other services (except public administration)	237,068
Public administration	133,839

Source: U.S. Census Bureau 2003.

Public Services

Electricity and Natural Gas

Southern California Edison supplies electricity for Oxnard, Ventura County, and Santa Clarita. SoCalGas supplies natural gas for the Project area.

Water

Oxnard Plain municipal and industrial water originates from the Calleguas Municipal Water District (imported) and the United Water Conservation District (groundwater from the El Rio pumping station). The City of Oxnard Water Division indicated that they could supply the estimated 2.5 million gallons required for the hydrostatic testing of the onshore Center Road Pipeline; reclaimed water is not available at this time (Moreno 2005).

Water from the Castaic Lake Water Agency is provided to customers in Santa Clarita by the Valencia and Santa Clarita Water Districts.

Health and Safety Services

Health and safety services in the Project vicinity include fire, police, and medical services. See Table 4.16-13 for a list of the primary services. Table 4.16-14 identifies fire and medical services in the Project area.

Table 4.16-13 Public Services Serving the Proposed Project Area

City/County	Medical Service	Sheriff and Police Offices	Fire Protection Services
Ventura County	Ventura County Medical Center 3291 Loma Vista Road Ventura, CA	Ventura County Sheriff 800 S. Victoria Avenue Ventura, CA (805) 654-2380	Ventura County Fire Department 165 Durley Avenue Camarillo, CA (805) 389-9710
City of Oxnard	St John's Regional Medical Center 1600 N. Rose Avenue Oxnard, CA (805) 988-2500	Oxnard Police Department 251 South C Street Oxnard, CA (805) 385-7600	Oxnard Fire Department 251 South C Street Oxnard, CA (805) 385-7722
City of Port Hueneme	St John's Regional Medical Center 1600 N Rose Avenue Oxnard, CA (805) 988-2500	Port Hueneme Police Department 250 N Ventura Road Port Hueneme, CA (805) 986-6530	Port Hueneme Fire Department 304 2nd Street Port Hueneme, CA (805) 986-8871
City of Ventura	Community Memorial Hospital 147 North Brent Street Ventura, CA (805) 652-5011	Ventura Police Department 1425 Dowell Drive Ventura, CA (805) 650-8010	Ventura Fire Department 1425 Dowell Drive Ventura, CA (805) 339-4310

Table 4.16-13 Public Services Serving the Proposed Project Area

City/County	Medical Service	Sheriff and Police Offices	Fire Protection Services
Santa Clarita Valley	Henry Mayo Newhall Memorial Hospital 23845 McBean Parkway, Valencia, CA General Information: (661) 253-8000 217 beds	SCV Sheriff's Station 23740 Magic Mountain Parkway Valencia, CA (661) 255-1121 California Highway Patrol 28648 The Old Road Valencia, CA (661) 294-5540	Los Angeles County Fire Department 27223 Henry Mayo Drive Valencia, CA 26839 Seco Canyon Road Valencia, CA 24875 N. San Fernando Road Newhall, CA
Oxnard, Ventura County and Santa Clarita	Grossman Burn Center at Sherman Oaks Hospital 4929 Van Nuys Blvd. Sherman Oaks, CA (818) 981-7111 30-bed burn center		

Sources: Ventura County 2000; Santa Clarita Valley Guide 2003.

Table 4.16-14 Fire and Emergency Medical Services in the Proposed Project Area

Fire Service/Area of Responsibility	Fire Stations in Vicinity of Proposed Project
Ventura County	
Ventura County, Camarillo Plain, South Coast, El Rio, and Port Hueneme	Ventura County Fire Department, Stations 50 to 57: 50 – Camarillo Airport, 189 Las Posas Road, Camarillo 51 – El Rio, 680 El Rio Road, Oxnard 52 – Mission Oaks, 5353 Santa Rosa Road, Camarillo 53 – Port Hueneme, 304 Second Street, Port Hueneme 54 – Camarillo, 2160 PickWick Drive, Camarillo 55 – Las Posas, 403 Valley Vista Drive, Camarillo 56 – Malibu, 11677 E. Pacific Coast Hwy., Malibu 57 – Somis, 3356 Somis Road, Somis
City of Oxnard	Oxnard Fire Department, Stations 60 to 66: 61 – Station 61, 491 South "K" Street, Oxnard 62 – Station 62, 531 East Pleasant Valley Road, Oxnard 63 – Station 63, 150 Hill Street, Oxnard 64 – Station 64, 230 West Vineyard Avenue, Oxnard 65 – Station 65, 1450 Colonia Road, Oxnard 66 – Station 66, 2601 Peninsula Road, Oxnard

Table 4.16-14 Fire and Emergency Medical Services in the Proposed Project Area

Fire Service/Area of Responsibility	Fire Stations in Vicinity of Proposed Project
Federal	NWAS Point Mugu (Stations 71 and 72) and NCBC Port Hueneme (Station 73)
Los Angeles County	
Santa Clarita Valley	Los Angeles County Fire Department, Battalion 6 FS 73 – 24875 N. San Fernando Road, Newhall FS 75 – 23310 Lake Manor Drive, Chatsworth FS 76 – 27223 Henry Mayo Drive, Valencia FS 77 – 46833 Peace Valley Road, Gorman FS 107- 18239 W. Soledad Canyon Road, Canyon Country FS 111 – 26289 Seco Canyon Road, Valencia FS 123 – 26231 N. Sand Canyon Road, Canyon Country FS 124 – 25870 Hemingway Avenue, Stevenson Ranch FS 126 – 26320 Citrus Drive, Santa Clarita FS 149 – 31770 Ridge Route, Castaic

Emergency Planning and Response Capabilities

The Project area has sophisticated emergency planning and response capabilities, discussed in the paragraphs below. Onshore emergency incidents may involve hazardous materials transport and storage or pipeline leaks or ruptures. Offshore incidents may involve supply or crew boats, the liquefied natural gas (LNG) carriers serving the deepwater port, or the proposed FSRU. Potential cost recovery options that would be available to local agencies for responding to incidents associated with construction or operation of this proposed Project are discussed in Section 4.2, "Public Safety: Hazards and Risk Analysis."

Emergency Preplanning with Other Onshore Utilities

Operators of pipeline facilities (SoCalGas) are required to prepare and implement an emergency response plan before an emergency happens, in accordance with the minimum required elements for emergency plans and procedures specified in U.S. Department of Transportation (USDOT) regulations. In planning emergency response procedures, an operator carefully looks at the environment surrounding the pipeline facility and the risks that the environment will pose in the event of a pipeline emergency. For example, electric and other utilities may offer sources of ignition or may provide additional fuel for fires, or the operations of these utilities may make responding to a pipeline emergency by firefighters or the pipeline operator more difficult. Preplanning with these utilities helps the operator identify issues to protect the public's health and safety and avoid or reduce property damage that may arise in responding to pipeline emergencies and plan effective response before there is an emergency.

Standardized Emergency Management System (SEMS) is mandated by California Government Code § 8607(a) as the means for providing a unified response for all elements of California's emergency management program, including managing response to multi-agency and multi-jurisdictional emergencies. State response

agencies are required to use SEMS, and local government agencies must use SEMS to be eligible for State funding of certain response-related personnel costs resulting from a disaster.

Local Fire and Police

Should an incident occur involving an onshore pipeline, local city and county fire and police services are already in place and have a proven record in appropriately managing incidents involving natural gas pipelines. When a natural gas distribution line valve was damaged as a result of an automobile accident on Rose Avenue in May 2004, local emergency services and the gas company (SoCalGas) quickly responded. Traffic was evacuated from roadways within a several-mile area and a nearby high school was "locked down" with students and faculty instructed to shelter-in-place as a precautionary measure. This actual response situation indicates that local services have the knowledge and skills to effectively manage natural gas emergencies, including cases where incident response must be closely coordinated with a sensitive site such as a school. (Note that this incident involved a distribution line, not a transmission line: a transmission line is more robustly constructed and generally better protected from impacts than the smaller distribution lines).

As described in the Public Facilities and Services Appendix to Ventura County's General Plan (Ventura County 2002), responsibility for emergency services planning in the county resides with the Sheriff's Department, Support Services Division, Office of Emergency Services. Under Ventura County Ordinance 2538, the Sheriff is also designated as the Director of Disaster (Emergency) Services. Emergency response plans are developed by the department for natural and man-made disasters including earthquakes, floods, tsunamis/seiches, wildland fires, hazardous materials incidents, landslides, dam failure emergencies, nuclear defense/radiological incidents, and transportation accidents (airplanes, boats, major highway accidents, and railroads). In addition, members of the Sheriff's department participate in local, regional, State, and Federal committees for California and Southern California Emergency Services.

Emergency response equipment available in Ventura County includes fire and rescue units, water and foam tenders, patrol units, bulldozers, two hazardous materials response vehicles, and four helicopters (Ventura County 2002).

Emergency response agencies in Ventura and Los Angeles counties have adopted the SEMS protocols for emergency response. Fire service in the area of the proposed Project pipelines is provided by the Ventura County Fire Department, which provides fire protection services within the unincorporated areas of Ventura County and in the incorporated areas of Port Hueneme and Camarillo. The Oxnard Fire Department provides fire services in the incorporated area of the City of Oxnard. Federal fire departments provide fire services at Point Mugu and Port Hueneme, and the Los Angeles County Fire Department provides services in the Santa Clarita Valley (see Table 4.16-14).

Hazardous Materials Response

The Center Road Pipeline, proposed and alternate routes, shore crossing facilities, and truck routes for odorant, diesel, and other hazardous materials supplies to Project supply vessels based at Port Hueneme, are all located within Ventura County, and parts are also in Oxnard. Response to hazardous materials incidents onshore within Ventura County is provided by hazardous materials (HazMat) Teams from the City of Oxnard, Ventura City, Ventura County, and by Federal teams. Mutual aid agreements are in place to provide a mechanism for tapping any or all of these resources as needed to respond to hazardous materials incidents within the county (City of Oxnard 2005). All firefighters are trained to the operational level as HazMat first responders. HazMat Team members receive additional training and have additional equipment available to them on HazMat response units. The Oxnard HazMat team is assigned to Fire Station 1 and would respond along with HazMat-trained personnel on Engine 1 to all hazardous materials emergencies in Oxnard. Ventura County maintains four fully-equipped HazMat teams that are available at all times (Ventura 2005).

The Line 225 Loop Pipeline proposed and alternate routes are located within the city limits of Santa Clarita in Los Angeles County. Hazardous materials response in Los Angeles County is provided by three teams of responders from the county fire department's Health HazMat Division Emergency Operations Section (Los Angeles 2005).

4.16.2 Regulatory Setting

Major Federal, State, and local laws and regulations relating to socioeconomic factors are identified in Table 4.16-15. Those that apply specifically to public safety and design features are included in Section 4.2, "Public Safety: Hazards and Risk Analysis."

Table 4.16-15 Major Laws, Regulatory Requirements, and Plans for Socioeconomics

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
Federal	
Magnuson-Stevens Fishery Conservation and Management Act of 1976	• All activities or proposed activities, authorized, funded, or undertaken by a Federal agency must consider adverse impacts on essential fish habitat.
State	
California Government Code, §§ 65996–65997 (Stats. 1998, ch. 407, sec. 230)	• Public agencies may not impose fees, charges, or other financial requirements to offset the cost for school facilities.
California Coastal Act of 1976, as amended, Public Resources Code, §§ 30000 et seq.	• Protects and manages coastal and marine resources, including maintenance of healthy populations of all species of marine organisms for long-term commercial, recreational, scientific, and educational purposes. • Protects commercial fishing and recreational boating industries and facilities.

Table 4.16-15 Major Laws, Regulatory Requirements, and Plans for Socioeconomics

Law/Regulation/Plan/ Agency	Key Elements and Thresholds; Applicable Permits
California Coastal Act of 1976, as amended, § 30234.5	• The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.
SB 1459, as amended August 23, 2004, Water, Parks and Wildlife 9-6 Appropriations 14-5 - *California Department of Fish and Game (CDFG)*	• Authorizes the management of the following fisheries: California halibut; Sea Cucumber; Ridge-back, spot, and golden prawns; and Pink shrimp. • Specifies the conditions under which bottom trawl fishing may take place off the coast of California. • Grants authority to the Commission over other types of gear (beside bottom trawl) targeting the same species as the bottom trawl fisheries. • Prohibits the Commission from authorizing additional fishing areas for bottom trawls unless the Commission determines there is adequate evidence that the fisheries are sustainable, do not harm bottom habitat, and do not reasonably conflict with other users.
Public Resources Code § 6873.5(b) - *California State Lands Commission*	• The California State Lands Commission (CSLC), under Public Resources Code § 6873.5(b), must consider the impacts of a proposed lease on the fisheries and marine habitat within the area considered for leasing, as indicated by the required EIR.

4.16.3 Significance Criteria

Impacts are considered significant if the Project:

- Offshore, creates long-term (more than one year) exclusion of fishing areas that historically have been important to the commercial and recreational fishing industries, such that regional fisheries revenues are reduced by more than five percent;
- Offshore, causes a loss of protected marine biological resources as a result of lost fishing gear;
- Offshore, depletes fisheries resources; or
- Onshore, induces a substantial increase in short- or long-term demand for public services and utilities.

The significance criteria above are addressed in the impact analysis and were used to develop appropriate mitigation measures to avoid, reduce, or minimize impacts. The Applicant has also designed the Project and incorporated measures to avoid causing the potential for certain impacts. The following significance criteria are therefore not applicable and will not be analyzed further:

- The Project would not create long-term (more than one year) economic loss of more than 5 percent to the regional commercial and recreational fishing

industries as a result of Project construction or operation because impacts will be local, limited, and small;

- The Project would not induce substantial growth or concentration of population during construction or operation. The increase in population during construction would be temporary and, compared to the permanent resident population base of Ventura County (estimated at 804,524 in January 2005) and Los Angeles County (estimated at 10,226,506 in January 2005), as shown in Table 4.16-5 above, would result in a less than 0.05 percent temporary increase from the current population base. Operation of Project facilities would require minimal support and would not cause a permanent population increase of 3 percent or more in the counties affected by the Project;
- The Project would not induce a substantial increase in the short- or long-term demand for housing in excess of existing and projected capacities or cause the vacancy rate of temporary housing to fall to less than 5 percent. The construction work force is small relative to the size of the proposed Project area and an adequate number of housing units is available; and
- The Project would not require an increase in demand for public services as there are adequate services available in the Project area to accommodate the temporary influx of project personnel and limited increase in permanent population to operate Project facilities.

4.16.4 Impact Analysis and Mitigation

Impacts and mitigation measures associated with socioeconomics are discussed below. Applicant-proposed measures (AM) and agency-recommended mitigation measures (MM) are defined in Section 4.1.5, "Applicant Measures and Mitigation Measures."

Impact SOCIO-1: Decrease in Catch Revenues for Commercial Fisheries due to Exclusion from Fishing Areas

The long-term and temporary exclusion of commercial fishers from fishing grounds could decrease catch revenues for commercial fisheries (CEQA Class II; NEPA moderate adverse, long-term).

The FSRU and the offshore pipelines would traverse three CDFG (2004) catch blocks: Blocks 683, 705, and 682 (see Figure 4.16-1 above), which are much larger than the area affected by the Project.[3] Fishermen would not be excluded from this area, but bottom trawlers would likely need to raise their gear to cross the pipeline. Trawling is generally not permitted within 3 miles (4.8 km) of shore, i.e., in State waters. Although CDFG commercial catch data are available for these blocks, accurate estimates for trawl fishery landings and effort are not provided. This information is collected directly from the fishers in the form of trip tickets and is not readily available.

[3] CDFG catch blocks are 10 by 10 miles (16.1 by 16.1 km).

Approximately 17.1 miles (27.5 km) of the 22.77-mile (36.64 km) pipeline would traverse areas designated as trawl fishing grounds.

In addition, the areas where trawling is permitted were recently revised. In June 2005, the Groundfish Fishery Management Plan was amended by the Pacific Coast Fisheries Management Council to incorporate trawl fishing restrictions. Regulations were scheduled to be implemented by May 2006. To prohibit expansion of bottom trawl fishing, the Groundfish Fishery Management Plan states that all waters within the Exclusive Economic Zone west of a line approximating the 700-fathom (4,200 feet or 1,280 m) depth contour are closed to bottom trawl gear. Additional gear restrictions may apply to waters between 0 to 200 miles (0 to 322 km) offshore (PCFMC 2005).

Based on commercial fishing landings information, the gear types responsible for highest landings by poundage and value include purse seine and longline. Fishing methods using these major gear types do not require fixed locations and are random, based on occurrence of fishing stocks throughout the year.

Table 4.16-16 identifies fish catch landings and value in fish blocks that the pipelines would traverse. Generally, the landings in Block 705 are much lower than those of the inshore Block 683, through which the major portion of the pipeline would be laid and which was evaluated for commercial fishing impacts.

Table 4.16-16 Fish Catch Landings and Revenue in the Project Area

CDFG Catch Block	Length of Pipelines in Fish Block (miles/km)	2003 Landings (lbs.)	2003 Value	1999 Landings (lbs.)	1999 Value
705	13.47 / 21.7	94,494	$ 36,527	79,247	$ 14,716
682	5.5 / 8.9	5,377,118	$1,395,748	1,588,456	$ 200,968
683	3.8 / 6.1	19,159,658	$3,976,315	27,280,959	$3,520,408

Sources: CDFG 2004, 2006.

The 1,640-foot (500 m) safety zone would eliminate 0.23 square NM (0.3 square miles or 0.8 square km [km^2]) of commercial fishing in Block 705. This equates to 0.23 percent of the available 100 square miles (259 km^2) contained within the block. Because fishing gear types used in the block are mainly oriented toward pelagic species, the fishers would not be significantly affected, nor would landings (such as they are) be reduced. Therefore, the safety zone around the FSRU would not have a significant economic impact on commercial fishers.

The Tanner Banks fishing grounds is roughly 65 to 70 NM (75 to 81 miles or 120 to 130 km) south of the proposed FSRU location. The proposed LNG carrier route passes through part of CDFG Catch Block 872, in the northwestern portion of the Tanner Banks fishing ground; fishers would not be restricted from this area but would be expected to avoid LNG carriers in accordance with normal rules of the road and vice versa.

Although fishers may be temporary excluded from fishing grounds directly along the pipeline route during construction, the overall economic impacts would not exceed the significance criteria.

The Applicant is also a member of the Oil Caucus of the Joint Oil/Fisheries Committee of South Central California and has stated that it would work through the committee to negotiate and mitigate impacts on fishers. Formed by offshore oil and fishing industries in south-central California, the Joint Oil/Fisheries Committee's two main goals are to provide a network whereby members of one industry could reach the appropriate contact in the other industry and to provide a neutral meeting place at which the two industries could meet to discuss conflicts.

The Joint Oil/Fisheries Committee provides guidelines for negotiations and mitigation measures that have been useful in the past. The committee provides specific guidance regarding the structure and functions of the JOFLO, including facilitating inter-industry communications and filing of claims, guidance intended to reduce conflicts between geophysical surveys and fishing operations, mediation, and other scientific issues. The committee has also developed the Vessel Traffic Corridor Program with the purpose of systematizing vessel traffic in the nearshore areas for net and trap fisheries. The committee uses State and Federal revenues for impact mitigation as warranted.

As described above, approximately 17.1 miles (27.5 km) of the 22.77-mile (36.64 km) pipeline would traverse areas designated as trawl fishing grounds. During public comments on the October 2004 Draft EIS/EIR, only one fisherman commented on the effects on commercial fishing; on further consultation he was satisfied that his fishing operations would not be affected (Meheen 2005). The installation method will be to lay the pipeline on the bottom. The USDOT requires public notification of pipelines on navigation charts. Exposed pipelines on the bottom could result in damage to or loss of trawl gear during fishing operations, thus causing fishers to modify their fishing techniques, i.e., raise their gear off the ocean floor to clear the proposed pipelines, use roller gear, or potentially avoid the area occupied by the pipelines. The economic impact of temporary or long-term exclusion of fishers from the Project area is expected to be low.

Except for the pipelines themselves and the crossing of the Navy RELI cable at a depth of 185 feet (56 m), pipeline appurtenances would not impact fishing in water depths of less than 600 feet (183 m); all buckle arrestors, the two other cable crossings, the pipeline end terminations, and associated jumpers would all be at depths of greater than 600 feet (183 m). In waters of less than 600 feet (183 m) deep, the concrete-coated pipes would have occasional anode bracelets; however, these would be a variation of the pipeline diameter and would provide no additional opportunity for snagging or obstruction beyond the pipeline itself. The cable crossing is described, including drawings, in the Pegasus Pipeline design report (Document No. 308-5751-TR-323R) contained in BHPB's Supplemental Technical Documentation, Volume 1 (2004). The potential for elements of the pipelines in shallow waters to affect fishing are considered minimal, but could occur.

The Applicant has incorporated the following into the Project:

AM SOCIO-1a. **Compensation for Lost Gear.** As a member of the Oil Caucus of the Joint Oil/Fisheries Committee of South Central California, the Applicant would negotiate mitigation for impacts on fishers using guidance from existing Joint Oil/Fisheries Committee guidelines for lost or damaged gear.

AM MT-1a. **Safety Vessel Warnings** would apply to this impact (see Section 4.3, "Marine Traffic").

AM MT-1b. **Automatic Identification System** would apply to this impact (see Section 4.3, "Marine Traffic").

AM MT-2b. **Established Routes to and from Port Hueneme** would apply to this impact (see Section 4.3, "Marine Traffic").

AM MT-2c. **Compliance with JOFLO Vessel Traffic Corridors** would apply to this impact (see Section 4.3, "Marine Traffic").

Mitigation Measure for Impact SOCIO-1: Decrease in Catch Revenues for Commercial Fisheries due to Exclusion from Fishing Areas

MM SOCIO-1b. **Arbitration.** If there is a complaint by a fisher related to impacts from the Project, the Applicant shall comply with a mutually agreed-upon settlement between itself and the injured party. If a settlement cannot be reached through voluntary negotiation that is acceptable to both parties, dispute resolution shall be conducted by a mutually agreed-upon arbitrator. The arbitrator shall be compensated by the Applicant. An arbitrator shall become involved if the voluntary negotiation is not concluded within three months.

With the implementation of these measures, decreases in catch revenues for commercial fisheries would be minimized, and the impact would be reduced to below the significance criteria.

Impact SOCIO-2: Decreased Commercial Fisheries Revenues due to Loss of Fishing Gear

The loss of commercial fishing gear from pipelines and supply boat traffic could decrease commercial fisheries revenues (CEQA Class II; NEPA minor adverse, short-term).

Impacts can occur to commercial fishing vessels when fishing equipment comes in contact with the offshore pipelines (NRC 2003). For trawlers and bottom longline vessels, damage to steel trawl doors or anchors may occur if the pipeline is not buried or armored. Damage may also occur to the pipeline. For lobster and crab trapping

vessels and for set gillnetters, traps and anchors can become entangled in the pipelines. This equipment tends to be too light to damage the pipelines.

During construction and operation of the proposed Project, support vessels may impact fishing gear outside of established corridors to some degree. It is predicted that fishers will avoid construction vessels, likely reducing potential conflicts. As discussed in Impact SOCIO-1, the JOFLO could moderate disputes over impacts of damaged fishing gear, if necessary. During operation, supply boats servicing the FSRU would cross nearshore set gear fishing areas such as Hueneme Flats and could hit and damage fishing gear. With the increase in number of supply boat trips during construction, the likelihood of supply boats impacting commercial fishing gear would increase. The supply boats would also service the FSRU during its operation. Burial of the pipeline using HDB within nearshore parts of Block 683 would eliminate long-term impacts on commercial trawl fishers from pipeline interference with gear.

The following Applicant-proposed measure would apply here:

AM SOCIO-1a. Compensation for Lost Gear would apply to this impact.

AM MT-2b. Established Routes to and from Port Hueneme would apply to this impact (see Section 4.3, “Marine Traffic”).

AM MT-2c. Compliance with JOFLO Vessel Traffic Corridors would apply to this impact (see Section 4.3, “Marine Traffic”).

Mitigation Measures for Impact SOCIO-2: Decreased Commercial Fisheries Revenues due to Loss of Fishing Gear

MM SOCIO-1b. Arbitration would apply to this impact.

MM MT-1c. Notices to Mariners would apply to this impact (see Section 4.3, “Marine Traffic”).

MM MT-1d. Securite Broadcasts would apply to this impact (see Section 4.3, “Marine Traffic”).

MM MT-1e. Safety Vessel would apply to this impact (see Section 4.3, “Marine Traffic”).

Implementation of MM MT-1c, Notices to Mariners, MM MT-1d, Securite Broadcasts, and MM MT-1e, Safety Vessel, would ensure that mariners are notified and able to avoid Project vessels, minimizing the potential loss of fishing gear. Implementation of AM SOCIO-1a, Compensation for Lost Gear, and MM SOCIO-1b, Arbitration, would ensure that commercial fisheries experience minimal revenue loss. With the implementation of the measures described above, this impact would be reduced to a level below its significance criteria.

Impact SOCIO-3: Increase in Regional Fishing Pressure

The permanent exclusion of commercial fishing from fishing grounds could increase fishing pressure in other areas or reduce the catch, resulting in negative economic impacts (CEQA Class III; NEPA minor adverse, long-term).

Commercial trawl fishing grounds are present along a 9.9-mile (15.9 km) section of the pipelines. In addition, other fisheries exist along the route of the pipelines and near the FSRU. No permanent exclusion of trawl fishers from fishing grounds directly along the route of the pipelines would occur, although trawl fishers may prefer to fish elsewhere to avoid the possibility of gear interference or modifications to their existing fishing methodologies.

All types of fishers would be permanently restricted from the safety zone near the FSRU, which is a 1,640-foot (500 m) radius measured from the stern of the FSRU. The safety zone is small compared to the overall size of the fishing grounds in this part of Southern California. The overall impact on fishing from excluding fishing in the safety zone, and thus any increased pressure in other areas, would be adverse but would not meet the issue's significance criteria.

Impact SOCIO-4: Small Increased Demand for Public Services

The Project would cause a slight increased demand for public services during construction and operations (CEQA Class III; NEPA minor adverse, long-term).

The Project would require hydrostatic testing for both the offshore and onshore pipelines. Approximately 2.5 million gallons (9,500 m^3) of test water from an approved source, which is likely to be the City of Oxnard municipal supply, would be needed to test the offshore pipelines. The amount of water required for testing of both onshore pipelines is dependent on the number of test segments to be tested because the water could be reused for each segment. Water would be obtained from a potable water source along the route. These are temporary, short-term demands that would not result in a significant impact on public water supply.

Impacts on public services such as water, sanitation, police, education, fire, medical services, and electric power would be minor. The small projected incremental demands during both Project construction and operation would not be sufficient to induce a substantial increase in the short- or long-term demand for housing, public services, and utilities in excess of existing and projected capacities. Consequently, impacts on public services would be less than significant and no mitigation would be required.

Table 4.16-17 summarizes the socioeconomic impacts and mitigation measures discussed above.

Table 4.16-17 Summary of Socioeconomic Impacts and Mitigation Measures

Impact	Mitigation Measure(s)
SOCIO-1: *Decrease in Catch Revenues for Commercial Fisheries due to Exclusion from Fishing Areas* The long-term and temporary exclusion of commercial fishers from fishing grounds could decrease catch revenues for commercial fisheries (CEQA Class II; NEPA moderate adverse, long-term).	**AM SOCIO-1a. Compensation for Lost Gear.** As a member of the Oil Caucus of the Joint Oil/Fisheries Committee of South Central California, the Applicant would negotiate mitigation for impacts on fishers using guidance from existing Joint Oil/Fisheries Committee guidelines for lost or damaged gear. **AM MT-1a. Safety Vessel Warnings** (see Section 4.3, "Marine Traffic"). **AM MT-1b. Automatic Identification System** (see Section 4.3, "Marine Traffic"). **AM MT-2b. Established Routes to and from Port Hueneme** (see Section 4.3, "Marine Traffic"). **AM MT-2c. Compliance with JOFLO Vessel Traffic Corridors** (see Section 4.3, "Marine Traffic"). **MM SOCIO-1b. Arbitration.** If there is a complaint by a fisher related to impacts from the Project, the Applicant shall comply with a mutually agreed-upon settlement between itself and the injured party. If a settlement cannot be reached through voluntary negotiation that is acceptable to both parties, dispute resolution shall be conducted by a mutually agreed-upon arbitrator. The arbitrator shall be compensated by the Applicant. An arbitrator shall become involved if the voluntary negotiation is not concluded within three months.
SOCIO-2: *Decreased Commercial Fisheries Revenues due to Loss of Fishing Gear* The loss of commercial fishing gear from pipelines and supply boat traffic could decrease commercial fisheries revenues (CEQA Class II; NEPA minor adverse, short-term).	**AM SOCIO-1a. Compensation for Lost Gear**. **AM MT-2b. Established Routes to and from Port Hueneme** (see Section 4.3, "Marine Traffic"). **AM MT-2c. Compliance with JOFLO Vessel Traffic Corridors** (see Section 4.3, "Marine Traffic"). **MM SOCIO-1b. Arbitration**. **MM MT-1c. Notices to Mariners** (see Section 4.3, "Marine Traffic"). **MM MT-1d. Securite Broadcasts** (see Section 4.3, "Marine Traffic"). **MM MT-1e. Safety Vessel** (see Section 4.3, "Marine Traffic").
SOCIO-3: *Increase in Regional Fishing Pressure* The permanent exclusion of commercial fishing from fishing grounds could increase fishing pressure in other areas or reduce the catch, resulting in negative economic impacts (CEQA Class III; NEPA minor adverse, long-term).	None.
SOCIO-4: *Small Increased Demand for Public Services* The Project would cause a slight increased demand for public services during construction	None.

Table 4.16-17 Summary of Socioeconomic Impacts and Mitigation Measures

Impact	Mitigation Measure(s)
and operations (CEQA Class III; NEPA minor adverse, long-term).	

4.16.5 Alternatives

4.16.5.1 No Action Alternative

As explained in greater detail in Section 3.4.1, under the No Action Alternative, MARAD would deny the license for the Cabrillo Port Project, the Governor of California would disapprove the Project under the provisions of the DWPA, or the CSLC would deny the application for the proposed lease of State tide and submerged lands for a pipeline right-of-way. Any of these actions or disapproval by any other permitting agency could result in the Project not proceeding. The No Action Alternative means that the Project would not go forward and the FSRU, associated subsea pipelines, and onshore pipelines and related facilities would not be installed. Accordingly, none of the potential impacts on socioeconomic conditions identified for the construction and operation of the proposed Project would occur.

Specifically, potential impacts that would not occur if the No Action Alternative is implemented include the following:

- Decrease in catch revenues for commercial fisheries due to long-term and temporary exclusion from fishing ground; and
- Decrease in catch revenues for commercial fisheries revenues due to loss of fishing gear from pipelines and supply boat traffic.

Since the proposed Project is privately funded, it is unknown whether the Applicant would proceed with another energy project in California; however, should the No Action Alternative be selected, the energy needs identified in Section 1.2, "Project Purpose, Need and Objectives," would likely be addressed through other means, such as through other LNG or natural gas-related pipeline projects. Such proposed projects may result in potential impacts on socioeconomic conditions similar in nature and magnitude to the proposed Project as well as impacts particular to the respective configurations and operations of each project; however, such impacts cannot be predicted with any certainty at this time.

4.16.5.2 Deepwater Port Location – Santa Barbara Channel/Mandalay Shore Crossing/Gonzales Road Pipeline

The onshore components and the required workforce of this Alternative would be similar to that of the proposed Project. The socioeconomic impacts of the onshore Project would be similar to those for the proposed onshore pipeline route and the same mitigation would apply.

Offshore, this alternative would include the same components and construction timeframe and workforce as the proposed Project. The pipelines would traverse Fish Blocks 666, 665, and 664. In general, the fishing areas are closer to shore and therefore impacts on fish landings in these blocks would likely be greater than the impacts from the proposed Project.

4.16.5.3 Alternative Onshore Pipeline Routes

Center Road Pipeline Alternative 1

The economic impacts of Center Road Pipeline Alternative 1 would be similar to those for the proposed Center Road Pipeline route and the same mitigation would apply.

Center Road Pipeline Alternative 2

The economic impacts of Center Road Pipeline Alternative 2 would be similar to those for the proposed Center Road Pipeline route and the same mitigation would apply.

Center Road Pipeline Alternative 3

The economic impacts of Center Road Pipeline Alternative 3 would be similar to those for the proposed Center Road Pipeline route and the same mitigation would apply.

Line 225 Pipeline Loop Alternative

The Line 225 Pipeline Loop Alternative would result in similar socioeconomic impacts as the proposed Line 225 Pipeline Loop and the same mitigation would apply.

4.16.5.4 Alternative Shore Crossing/Pipeline Route

Point Mugu Shore Crossing/Casper Road Pipeline

This Alternative would have the same components as the proposed Project, would require a similar workforce, and would result in the same socioeconomic impacts as the proposed Project.

The offshore pipelines and FSRU location would be the same, and the HDB location would be very near the location for the proposed Project. Therefore, impacts are expected to be the same as those for the proposed Project and the same mitigation would apply.

Arnold Road Shore Crossing/Arnold Road Pipeline

This alternative would have the same components as the proposed Project, would require a similar workforce, and would result in the same socioeconomic impacts as the proposed Project.

The offshore pipelines and FSRU location would be the same, and the HDB location would be very near the location for the proposed Project. Therefore, impacts are

expected to be the same as those for the proposed Project and the same mitigation would apply.

4.16.6 References

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